10/532480
JC13 Rec'd PCT/PTO 22 APR 2005

SEQUENCE LISTING

<110> Garry, Jr., Robert F.
McKeating, Jane A.
Dash, Srikanta
Coy, David H.

<120> FLAVIVIRUS FUSION INHIBITORS

<130> 12920.0014.00PC00 (TUMC014P)

<140> PCT/US03/35666
<141> 2003-11-07

<150> 60/424,746
<151> 2002-11-08

<160> 65

<170> PatentIn version 3.2

<210> 1
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (30)..(30)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 1

Tyr Gln Val Arg Asn Ser Ser Gly Leu Tyr His Val Thr Asn Asp Cys
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu
20 25 30

<210> 2
<211> 34

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 2

Cys Ser Ala Leu Tyr Trp Val Gly Asp Leu Cys Gly Ser Val Phe Leu
1 5 10 15

Val Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln
20 25 30

Asp Cys

<210> 3
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or

carbohydrate

<400> 3

Ser Pro Arg Arg His Trp Thr Thr Gln Asp Cys Asn Cys Ser Ile Tyr
1 5 10 15

Pro Gly His Ile Thr Gly His Arg Met Ala Trp Asp Met Met Met Asn
20 25 30

Trp Ser Pro Thr
35

<210> 4
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 4

Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Leu Arg Ile Pro Gln
1 5 10 15

Ala Ile Met Asp Met Ile Ala Gly Ala His Trp Gly Val Leu Ala Gly
20 25 30

Ile Lys Tyr Phe Ser Met Val Gly Asn Trp
35 40

<210> 5
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (30)..(30)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 5

Arg Val Thr Asp Pro Asp Thr Asn Thr Thr Ile Leu Thr Asn Cys Cys
1 5 10 15

Gln Arg Asn Gln Val Ile Tyr Cys Ser Pro Ser Thr Cys Leu
20 25 30

<210> 6
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 6

Arg Asp Phe Val Glu Gly Val Ser Gly Gly Ser Trp Val Asp Ile Val
1 5 10 15

Leu Glu His Gly Ser Cys Val Thr Thr Met Ala Lys Asn Lys Pro Thr
20 25 30

Leu Asp Phe
35

<210> 7
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 7

Arg Asp Phe Ile Glu Gly Ala Ser Gly Ala Thr Trp Val Asp Leu Val
1 5 10 15

Leu Glu Gly Asp Ser Cys Leu Thr Ile Met Ala Asn Asp Lys Pro Thr
20 25 30

Leu Asp Val
35

<210> 8
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl,

hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 8

Arg Asp Phe Ile Glu Gly Val His Gly Gly Thr Trp Val Ser Ala Thr
1 5 10 15

Leu Glu Gln Asp Lys Cys Val Thr Val Met Ala Pro Asp Lys Pro Ser
20 25 30

Leu Asp Ile
35

<210> 9
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 9

Arg Asp Phe Leu Glu Gly Val Ser Gly Ala Thr Trp Val Asp Leu Val
1 5 10 15

Leu Glu Gly Asp Ser Cys Val Thr Ile Met Ser Lys Asp Lys Pro Thr
20 25 30

Ile Asp Val

35

<210> 10
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 10

Gly Gln Leu Ala Cys Lys Glu Asp Tyr Arg Tyr Ala Ile Ser Ser Thr
1 5 10 15

Asn Glu Ile Gly Leu Leu Gly Ala Gly Gly Leu Thr Thr Thr Trp Lys
20 25 30

Glu Tyr Asn
35

<210> 11
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>

<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 11

Gly His Leu Asp Cys Lys Pro Glu Phe Ser Tyr Ala Ile Ala Lys Asp
1 5 10 15

Glu Arg Ile Gly Gln Leu Gly Ala Glu Gly Leu Thr Thr Thr Trp Lys
20 25 30

Glu Tyr Ser
35

<210> 12
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (35)..(35)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 12

Gly Glu Phe Ala Cys Arg Glu Asp His Arg Tyr Ala Leu Ala Lys Thr
1 5 10 15

Lys Glu Ile Gly Pro Leu Gly Ala Glu Ser Leu Thr Thr Thr Trp Thr
20 25 30

Asp Tyr Gln
35

<210> 13

<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 13

Thr Cys Asp Ala Leu Asp Ile Gly Glu Leu Cys Gly Ala Cys Val Leu
1 5 10 15

Val Gly Asp Trp Leu Val Arg His Trp Leu Ile His Ile Asp Leu Asn
20 25 30

Glu Thr

<210> 14
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic,

macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 14

Lys Arg Phe Val Cys Lys His Ser Met Val Asp Arg Gly Trp Gly Asn
1 5 10 15

Gly Cys Gly Leu Phe Gly Lys Gly Gly Ile Val Thr Cys Ala Met Phe
20 25 30

Thr Cys

<210> 15
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 15

Ser Ser Tyr Val Cys Lys Gln Gly Phe Thr Asp Arg Gly Trp Gly Asn
1 5 10 15

Gly Cys Gly Leu Phe Gly Lys Gly Ser Ile Asp Thr Cys Ala Lys Phe
20 25 30

Ser Cys

<210> 16
<211> 34
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 16

Gly Asp Asn Ala Cys Lys Arg Thr Tyr Ser Asp Arg Gly Trp Gly Asn
1 5 10 15

Gly Cys Gly Leu Phe Gly Lys Gly Ser Ile Val Ala Cys Ala Lys Phe
20 25 30

Thr Cys

<210> 17
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 17

Pro Ala Phe Val Cys Arg Gln Gly Val Val Asp Arg Gly Trp Gly Asn
1 5 10 15

Gly Cys Gly Leu Phe Gly Lys Gly Ser Ile Asp Thr Cys Ala Lys Phe
20 25 30

Ala Cys

<210> 18
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 18

Lys Gly Lys Tyr Asn Thr Thr Leu Leu Asn Gly Ser Ala Phe Tyr Leu
1 5 10 15

Val Cys Pro Ile Gly Trp Thr Gly Val Ile Glu Cys Thr Ala Val Ser
20 25 30

Pro Thr

<210> 19
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>

<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 19

Arg Gly Lys Phe Asn Thr Thr Leu Leu Asn Gly Pro Ala Phe Gln Met
1 5 10 15

Val Cys Pro Ile Gly Trp Thr Gly Thr Val Ser Cys Thr Ser Phe Asn
20 25 30

Met Asp

<210> 20
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 20

Arg Gly Lys Tyr Asn Ala Thr Leu Leu Asn Gly Ser Ala Phe Gln Leu
1 5 10 15

Val Cys Pro Tyr Glu Trp Thr Gly Arg Val Glu Cys Thr Thr Ile Ser
20 25 30

Lys Ser

<210> 21
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 21

Ile His Ile Asp Leu Asn Glu Thr Gly Thr Cys Tyr Leu Glu Val Pro
1 5 10 15

Thr Gly Ile Asp Pro Gly Phe Leu Gly Phe Ile Gly Trp Met Ala Gly
20 25 30

Lys Val Glu Ala
35

<210> 22
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl,

hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 22

Met Val Leu Leu Gln Met Glu Asp Lys Ala Trp Leu Val His Arg Gln
1 5 10 15

Trp Phe Leu Asp Leu Pro Leu Pro Trp Leu Pro Gly Ala Asp Thr Gln
20 25 30

Gly Ser Asn Trp
35

<210> 23
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 23

Phe Tyr Val Met Thr Val Gly Ser Lys Ser Phe Leu Val His Arg Glu
1 5 10 15

Trp Phe His Asp Leu Ala Leu Pro Trp Thr Ser Pro Ser Ser Thr Ala
20 25 30

Trp Arg Asn Arg

35

<210> 24
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 24

Ser Tyr Ile Ala Glu Met Glu Thr Glu Ser Trp Ile Val Asp Arg Gln
1 5 10 15

Trp Ala Gln Asp Leu Thr Leu Pro Trp Gln Ser Gly Ser Gly Gly Val
20 25 30

Trp Arg Glu Met
35

<210> 25
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>

<221> MOD_RES
<222> (36)..(36)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 25

Tyr Tyr Val Met Thr Val Gly Thr Lys Thr Phe Leu Val His Arg Glu
1 5 10 15

Trp Phe Met Asp Leu Asn Leu Pro Trp Ser Ser Ala Gly Ser Thr Val
20 25 30

Trp Arg Asn Arg
35

<210> 26
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 26

Thr Leu Arg Thr Glu Val Val Lys Thr Phe Arg Arg Asp Lys Pro Phe
1 5 10 15

Pro His Arg Met Asp Ala Val Thr Thr Thr Val Glu Asn Glu Asp Leu
20 25 30

Phe Tyr

<210> 27

<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (34)..(34)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 27

Thr Leu Ala Thr Glu Val Val Lys Ile Tyr Lys Arg Thr Lys Arg Phe
1 5 10 15

Arg Ser Gly Leu Val Ala Thr His Thr Thr Ile Tyr Glu Glu Asp Leu
20 25 30

Tyr His

<210> 28
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (33)..(33)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic,

macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 28

Thr Leu Ala Thr Thr Val Val Arg Thr Tyr Arg Arg Ser Lys Pro Phe
1 5 10 15

Pro His Arg Gln Gly Ala Ile Thr Gln Lys Asn Leu Gly Glu Asp Leu
20 25 30

His

<210> 29
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 29

Trp Met Ala Gly Lys Val Glu Ala Val Ile Phe Leu Thr Lys Leu Ala
1 5 10 15

Ser Gln Val Pro Tyr Ala Ile Ala Thr Met Phe Ser Ser Val His Tyr
20 25 30

Leu Ala Val Gly Ala Leu Ile Tyr Tyr Ser
35 40

<210> 30
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 30

Met Ala Ile Leu Gly Asp Thr Ala Trp Asp Phe Gly Ser Leu Gly Gly
1 5 10 15

Val Phe Thr Ser Ile Gly Lys Ala Leu His Gln Val Phe Gly Ala Ile
20 25 30

Tyr Gly Ala Ala Phe Ser Gly Val Ser Trp
35 40

<210> 31
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 31

Leu Ala Ala Leu Gly Asp Thr Ala Trp Asp Phe Gly Ser Ile Gly Gly
1 5 10 15

Val Phe Asn Ser Ile Gly Lys Ala Val His Gln Val Phe Gly Gly Ala
20 25 30

Phe Arg Thr Leu Phe Gly Gly Met Ser Trp
35 40

<210> 32
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 32

Leu Ala Val Met Gly Asp Thr Ala Trp Asp Phe Ser Ser Ala Gly Gly
1 5 10 15

Phe Phe Thr Ser Val Gly Lys Gly Ile His Thr Val Phe Gly Ser Ala
20 25 30

Phe Gln Gly Leu Phe Gly Gly Leu Asn Trp
35 40

<210> 33
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 33

Leu Ala Ala Leu Gly Asp Thr Ala Trp Asp Phe Gly Ser Val Gly Gly
1 5 10 15

Val Phe Thr Ser Val Gly Lys Ala Val His Gln Val Phe Gly Gly Ala
20 25 30

Phe Arg Ser Leu Phe Gly Gly Met Ser Trp
35 40

<210> 34
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 34

Gln Gln Tyr Met Leu Lys Gly Glu Tyr Gln Tyr Trp Phe Asp Leu Asp
1 5 10 15

Val Thr Asp Arg His Ser Asp Tyr Phe Ala Glu Phe Val Val Leu Val
20 25 30

Val Val Ala Leu Leu Gly Gly Arg Tyr Ile
35 40

<210> 35
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (42)..(42)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 35

Gln Gln Tyr Met Leu Lys Gly Glu Tyr Gln Tyr Trp Phe Asp Leu Glu
1 5 10 15

Val Thr Asp His His Arg Asp Tyr Phe Ala Glu Ser Ile Leu Val Val
20 25 30

Val Val Ala Leu Leu Gly Gly Arg Tyr Val
35 40

<210> 36
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The amino-terminal amino acid residue comprises an amino group or is modified to contain one of the following groups: acetyl, hydrophobic, macromolecular, carbobenzoxyl, dansyl, t-butyloxycarbonyl, lipid, polyethylene glycol, or carbohydrate

<220>
<221> MOD_RES
<222> (43)..(43)
<223> The carboxy-terminal amino acid residue comprises a carboxyl group or one of the following groups: amido, hydrophobic, macromolecular, t-butyloxycarbonyl, lipid, polyethyleneglycol, or carbohydrate

<400> 36

Gln Gln Tyr Met Leu Lys Gly Gln Tyr Gln Tyr Trp Phe Asp Leu Glu
1 5 10 15

Val Ile Ser Ser Thr His Gln Ile Asp Leu Thr Glu Phe Ile Met Leu
20 25 30

Ala Val Val Ala Leu Leu Gly Gly Arg Tyr Val
35 40

<210> 37
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa can be any naturally occurring amino acid

<400> 37

Arg Xaa Arg Lys Arg
1 5

<210> 38
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<400> 38

Ser Cys Leu Thr Val Pro Ala Ser Ala Tyr Gln Val Arg Asn Ser Ser
1 5 10 15

Gly Leu

<210> 39
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 39

Ser Ala Tyr Gln Val Arg Asn Ser Ser Gly Leu Tyr His Val Thr Asn
1 5 10 15

Asp Cys

<210> 40
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 40

Ser Ser Gly Leu Tyr His Val Thr Asn Asp Cys Pro Asn Ser Ser Ile
1 5 10 15

Val Tyr

<210> 41
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 41

Thr Asn Asp Cys Pro Asn Ser Ser Val Val Tyr Glu Ala Ala Asp Ala

1 5 10 15

Ile Leu

<210> 42
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 42

Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr Pro Gly Cys
1 5 10 15

Val Pro

<210> 43
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 43

Asp Ala Ile Leu His Thr Pro Gly Cys Val Pro Cys Val Arg Glu Gly
1 5 10 15

Asn Ala

<210> 44
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 44

Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp Val
1 5 10 15

Ala Val

<210> 45
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 45

Trp Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro
1 5 10 15

Thr Thr

<210> 46
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 46

Trp Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro
1 5 10 15

Thr Thr

<210> 47
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 47

Val Ala Thr Arg Asp Gly Lys Leu Pro Thr Thr Gln Leu Arg Arg His
1 5 10 15

Ile Asp

<210> 48

<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 48

Leu Pro Thr Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser
1 5 10 15

Ala Thr

<210> 49
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 49

Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu Cys Ser Ala Leu
1 5 10 15

Tyr Val

<210> 50
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 50

Gly Ser Ala Thr Leu Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly
1 5 10 15

Ser Val

<210> 51
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 51

Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val Gly Gln
1 5 10 15

Leu Phe

<210> 52
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 52

Cys Gly Ser Val Phe Leu Val Gly Gln Leu Phe Thr Phe Ser Pro Arg
1 5 10 15

His His

<210> 53
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 53

Gly Gln Leu Phe Thr Phe Ser Pro Arg His His Trp Thr Thr Gln Asp
1 5 10 15

Cys Asn

<210> 54
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 54

Pro Arg His His Trp Thr Thr Gln Asp Cys Asn Cys Ser Ile Tyr Pro

1 5 10 15

Gly His

<210> 55
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 55

Gln Asp Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg
1 5 10 15

Met Ala

<210> 56
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 56

Tyr Pro Gly His Ile Thr Gly His Arg Met Ala Asn Met Met Met Asn
1 5 10 15

Trp

<210> 57
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 57

His Arg Met Ala Asn Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu
1 5 10 15

Val

<210> 58
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 58

Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ala Gln Leu Leu
1 5 10 15

Arg Ile

<210> 59
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 59

Ala Ala Leu Val Val Ala Gln Leu Leu Arg Ile Pro Gln Ala Ile Met
1 5 10 15

Asp Met

<210> 60
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 60

Leu Leu Arg Ile Pro Gln Ala Ile Met Asp Met Ile Ala Gly Ala His
1 5 10 15

Trp Gly

<210> 61
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 61

Ile Met Asp Met Ile Ala Gly Ala His Trp Gly Val Leu Ala Gly Ile
1 5 10 15

Lys Tyr

<210> 62
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 62

Ala His Trp Gly Val Leu Ala Gly Ile Lys Tyr Phe Ser Met Val Gly
1 5 10 15

Asn Trp

<210> 63
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 63

Gly Ile Lys Tyr Phe Ser Met Val Gly Asn Trp Ala Lys Val Leu Val
1 5 10 15

Val Leu

<210> 64
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 64

Val Gly Asn Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly
1 5 10 15
Val Asp

<210> 65
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 65

Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala Glu Thr His Val
1 5 10 15

Thr Gly